REMARKS

Claim Rejections

Claims 10-17 are rejected under U.S.C. §103 (a) as being unpatentable over AAPA in combination with Park et al. (6,935,915) further in combination with Windischmann et, al, (2003/0034721).

Claim Amendments

By this Amendment, Applicant has canceled claim 15 and has amended claim 10 of this application to include the limitations of claim 15. It is believed that the amended claims specifically set forth each element of Applicant's invention in full compliance with 35 U.S.C. § 112, and define subject matter that is patentably distinguishable over the cited prior art, taken individually or in combination.

The amended claims are directed toward: a method of forming CNT emitting sources, said method comprising the steps of: providing a substrate; forming a plurality of cathode lines on said substrate; forming a dielectric layer on said substrate and overlaying said cathode lines; forming a plurality of gate lines on said dielectric layer, said cathodes lines being perpendicular to said gate lines so as to define said pixels; and patterning said dielectric layer over said pixels so as to form openings which expose said cathode lines; providing an imprint negative mold having a first pattern for imprinting emitting sources; utilizing said imprint negative mold dipped with CNT paste; using said imprint negative mold imprinting said CNT paste on said cathode lines through said openings; and curing said CNT paste to form said CNT emitting sources, ***wherein said imprint negative mold comprises a trench pattern housing said gate lines so as to prevent the CNT paste adhering to said gate lines while imprinting***.

In the Amendment of 6/13/07, Applicant argued that Park et al. discloses a formation method using screening printing rather than by stamping. The Examiner expressed he only agrees in part. In response, Applicant notes that the stamping method disclosed in the present application requires a stamping mold 30, which includes two parts, one for insulating the gate and the other for stamping the CNT paste onto the cathode lines so that the CNT paste 17 can only stamp onto the predetermined positions. This feature is claimed in the claim 15 of the present

application. As a result of this recited feature, no gate to cathode bridged problem will occur, i.e., "wherein said imprint negative mold comprises a trench pattern housing said gate lines so as to prevent the CNT paste adhering to said gate lines while imprinting." Claim 1. However, the "stamping method" which Examiner considers Park et al. to disclose is actually a CNT paste carried by a template 18 screening print on the columns 15. The template 18 includes a large plain surface, which has nothing to prevent the CNT paste on the column 15 from bridging to the gate 4.

Furthermore, Applicant provides additional remarks to explain the difference between the present invention and Park et al. as follows. First, the CNT paste appears to be a stamp ink (or pad). In Park et al., the specimen includes the substrate 1, 2, gate structure 4, and column 15, as a whole, appears to indicate that the structure is a stamp. The process disclosed by Park et al. involves the stamp pad 18, 17 touching the stamp. In such a process, there is no guarantee that the stamp ink 17 will not drop on the undesired area to short the circuit (gate bridged to cathode), especially in processes using soft mud, such as CNT paste. In contrast, the stamping process disclosed by in the present application is a stamp mold 30. Applicant's processes require the stamp mold 30 dipping to the stamp pad to carry the CNT paste and then stamp the CNT paste onto the target (cathode). Since it is a stamp mold 30, Applicant can thus guarantee the CNT paste will not have any bridge problem, even in the worst conditions, the CNT paste 70B will not drop onto the gate 60.

Furthermore, as Applicant noted in the Amendment of 6/13/07, the column 15 has to be higher than the top surface of the gate 4 initially, and then baked to shrink the height of column 15. There is serious risk of column 15 collapsing or not shrinking to a predetermined height during firing at 450°C to 550°C. Still the CNT paste formed on the cathode line has an ideal tip shape in the present application. In contrast, the shape of the CNT paste formed according to Park et al. reference is only a CNT stack.

In the Amendment of 6/13/07, Applicant further argued that there is no motivation to combine Windischmann with Park et al. However, the Examiner expressed that he did not agree. In response, Applicant reiterates the fact that a

stamp mold 20 having a tip shape 24 is used to carry CNT in Park et al. and, in Windischmann, it is difficult stamp onto the columns 15 because an extra alignment for tip shape 24 and the columns 15 is required. Applicant further submits that AAPA does not provide the above-noted deficiencies of Park et al. or Windischmann.

Accordingly, even if the teachings of Park et al., AAPA, and Windischmann et al. were combined, as suggested by the Examiner, the resultant combination does not suggest: a method of forming CNT emitting sources, said method comprising the steps of: providing a substrate; forming a plurality of cathode lines on said substrate; forming a dielectric layer on said substrate and overlaying said cathode lines; forming a plurality of gate lines on said dielectric layer, said cathodes lines being perpendicular to said gate lines so as to define said pixels; and patterning said dielectric layer over said pixels so as to form openings which expose said cathode lines; providing an imprint negative mold having a first pattern for imprinting emitting sources; utilizing said imprint negative mold dipped with CNT paste; using said imprint negative mold imprinting said CNT paste on said cathode lines through said openings; and curing said CNT paste to form said CNT emitting sources, wherein said imprint negative mold comprises a trench pattern housing said gate lines so as to prevent the CNT paste adhering to said gate lines while imprinting.

It is a basic principle of U.S. patent law that it is improper to arbitrarily pick and choose prior art patents and combine selected portions of the selected patents on the basis of Applicant's disclosure to create a hypothetical combination which allegedly renders a claim obvious, unless there is some direction in the selected prior art patents to combine the selected teachings in a manner so as to negate the patentability of the claimed subject matter. This principle was enunciated over 40 years ago by the Court of Customs and Patent Appeals in In re Rothermel and Waddell, 125 USPQ 328 (CCPA 1960) wherein the court stated, at page 331:

> The examiner and the board in rejecting the appealed claims did so by what appears to us to be a piecemeal reconstruction of the prior art patents in the light of appellants' disclosure. ... It is easy now to attribute to this prior art the knowledge which was first

> made available by appellants and then to assume that it would have been obvious to one having the ordinary skill in the art to make these suggested reconstructions. While such a reconstruction of the art may be an alluring way to rationalize a rejection of the claims, it is not the type of rejection which the statute authorizes.

The same conclusion was later reached by the Court of Appeals for the Federal Circuit in Orthopedic Equipment Company Inc. v. United States, 217 USPQ 193 (Fed.Cir. 1983). In that decision, the court stated, at page 199:

> As has been previously explained, the available art shows each of the elements of the claims in suit. Armed with this information, would it then be non-obvious to this person of ordinary skill in the art to coordinate these elements in the same manner as the claims in suit? The difficulty which attaches to all honest attempts to answer this question can be attributed to the strong temptation to rely on hindsight while undertaking this evaluation. It is wrong to use the patent in suit as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the result of the claims in suit. Monday morning quarterbacking is quite improper when resolving the question of non-obviousness in a court of law.

In In re Geiger, 2 USPQ2d, 1276 (Fed.Cir. 1987) the court stated, at page 1278:

> We agree with appellant that the PTO has failed to establish a *prima facie* case of obviousness. Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching suggestion or incentive supporting the combination.

Applicant submits that there is not the slightest suggestion in either Park et al., AAPA, or Windischmann et al. that their respective teachings may be combined as suggested by the Examiner. Case law is clear that, absent any such teaching

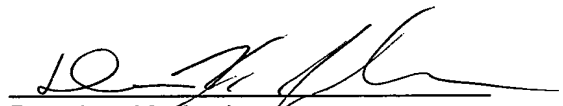
or suggestion in the prior art, such a combination cannot be made under 35 U.S.C. § 103.

Neither Park et al., AAPA, nor Windischmann et al. disclose, or suggest a modification of their specifically disclosed structures that would lead one having ordinary skill in the art to arrive at Applicant's claimed structure. Applicant hereby respectfully submits that no combination of the cited prior art renders obvious Applicant's amended claims.

Summary

In view of the foregoing remarks, Applicant submits that this application is now in condition for allowance and such action is respectfully requested. Should any points remain in issue, which the Examiner feels could best be resolved by either a personal or a telephone interview, it is urged that Applicant's local attorney be contacted at the exchange listed below.

Respectfully submitted,

Date: December 12, 2007 By: 

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